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ABSTRACT

Thirty years after their development, David A. Kolb's Cycle of Learning and Learning Style Inventory are widely used to understand the stages of learning and the ways people prefer to receive and process new information. The model and the self-assessment are both based on Kolb's experiential learning theory, which emphasizes the need for learner involvement in educational activities. The Learning Style Inventory is used in faculty development courses to give judges, who serve as peer instructors, an understanding of the individual preferences for certain learning experiences and the need to use teaching methodology that addresses those preferences. While the learning cycle has tremendous benefit for judicial educators, there is another aspect of Kolb's model that may be equally important: the theory of growth and development. This paper revisits Kolb's model, including the aspects related to growth and development. The model's relevance is explored in light of recent research in both brain learning and how to foster deep learning, along with applications of the model for judicial educators. The paper contends that judicial education can be greatly enriched through the introduction of methodology both in and outside the classroom that integrates principles of participant-centered deep learning. (Contains 26 notes.) (BT)

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Going Around the Circle Again: Exploring Kolb's Theory of Growth and Development

Krista R. Johns, J.D.

Thirty years after their development, David A. Kolb's Cycle of Learning and Learning Style Inventory are widely used to understand the stages of learning and the ways people prefer to receive and process new information. The model and the self-assessment are both based on Kolb's experiential learning theory, which emphasizes the need for learner involvement in educational activities.

Judicial educators have found Kolb's work to be instructive in thinking about judicial education. The Learning Style Inventory is used in faculty development courses to give judges, who serve as peer instructors, an understanding of individual preferences for certain learning experiences and the need to use teaching methodology that addresses those preferences. From this understanding, faculty development participants study and practice the design of balanced learning experiences.

While in itself the learning cycle has tremendous benefit for judicial educators, there is another aspect of Kolb's model that may be equally important: the theory of growth and development. The theory of growth and development builds from the cycle of learning, and explains the impact of multiple learning experiences over time. To date, little has been done in judicial education with that portion of the model.

This paper will revisit Kolb's model, including the aspects related to growth and development. The relevance of this model will be explored in light of recent research in brain learning and how to foster deep learning, along with applications of the model for judicial educators.[1] Judicial education can be greatly enriched through the introduction of methodology both in and outside the classroom that integrates principles of participant-centered deep learning.[2]

Concrete experience in learning

Kolb's model begins with the recognition of concrete experience as the elemental way in which learning is prompted.[3] This assumption about personal experience challenges traditional formal instruction, which emphasizes an abstract, theoretical first approach to information (learn the basic rules first and then apply them to constructed problems). It also confronts the traditional role of faculty by acknowledging the role of learners in construing the meaning of what is offered.

Most of us accept that our early childhood learning came out of experience. There were no manuals for infants on how to demand food or how to crawl. We even understand that later

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childhood tasks, such as learning to ride a bicycle, began experientially. Primary and secondary school experiences, however, reinforced the sense that cognitive learning in preparation for our educational and professional futures should begin with the introduction of information and abstract concepts. In high school, for example, the number of applied courses in music, art, sports, typing or auto shop that could be used for graduation was limited. Experiential portions of core high school courses stand out for their rarity: preparing income tax returns in economics class, creating a bug collection for biology, or participating on a debating team. For the most part, a "knowledgeable other," the teacher, told us what was important about a subject and the rules for working within that subject.

The bias in favor of the abstract— the symbolic— is especially strong in law. Law students are taught to think like lawyers. They dissect cases by identifying the issues, setting forth the rules, and applying rules to the available facts. Practical courses in legal research and writing, and legal clinical experiences, are limited relative to the substantive (i.e., abstract) course load. Indeed, law schools that are "too applied" are somehow suspect.

It is when the law student is emancipated from the formal schooling process, and becomes a licensed attorney, that the role of concrete experience in prompting learning becomes obvious again. New attorneys are assaulted with information coming to them in direct, concrete ways. No longer does the work present itself first as a written opinion to be analyzed. Clients describe their problems as personal stories rather than as legal issues. Lawyers need to ask questions and obtain sufficient information to determine an appropriate course of action. They need to develop appropriate legal documents, identify rules and processes that apply to the situation, and give advice about options to the client. They need to observe time constraints, and they must get paid. These very real and practical problems motivate the learning for new attorneys.

New judges experience a similar jolt as they face their new role. Once again, the immediate needs of the role create an urgency for learning. Information about the abstract concept of demeanor is less compelling than "what do I say when I first get on the bench?" Cases are on the docket, and judges must know the elements to be proven, how to apply rules of evidence, procedures for moving a case along, ways to deal with attorneys, litigants and witnesses, and how to render an appropriate decision in the allotted time. Judges want to act within ethical bounds, earn the respect of colleagues, and avoid reversals on appeal. These pressing needs arise in waves of new faces and varied facts. They motivate the learning for new judges.

At this point, learning takes on a very practical edge. Judges want information that will directly address their individually-experienced problems. The judges' learning focus is very pragmatic. Their focus is not on the abstract principles of law, and is certainly not on general overview information about a subject. Unfortunately, the learners' needs are on a

collision course with traditional judicial education.

Judicial education, as a type of continuing professional education, was conceived in the traditional model. Judicial educators, viewing their function as an extension of law school for judges, have taken pains to develop courses in the traditional mode. Even the physical environment is adjusted, as much as possible, to recreate a classroom with rows of tables and chairs facing the front of the room. The conference sessions offer presentations in generalized subject areas ("we need something in civil, in criminal, and in family"), with judge-faculty delivering the material primarily in lecture mode. Much of the time in these sessions is spent on the transmission of the subject concepts, with limited opportunity for application. The sessions considered most current are the case law updates, with their rapid-fire oral distillations of cases recently decided by the appellate courts. Real-life application of the cases is generally relegated to a sparse "Q and A" session or to the coffee break. Another stalwart of traditional judicial education, the so-called bull session where judges share recent experiences and lessons learned, has been discounted and limited by planners, even as participants request more of it ("the best learning I get at these conferences is by hearing what my peers are doing"). Most of the valuable learning happens in the hallways during break times.

"New judicial education" has arisen as a movement to become more responsive to the practical needs of judge learners. It encourages faculty to use other instructional methods in addition to lecture, and to relate material to on-the-job applications. Ironically, it still starts from the framework of the traditional formal classroom. The responsibility for planning and design remains primarily that of faculty, perhaps with general direction by a planning committee. The basis for these changes in judicial education is less a new framework than it is a general sense that judicial education can be better, and that policy-makers and funders would like to tie educational activities to improved job performance. A stronger argument needs to be made in order to bring about significant change in the way we approach judicial education and career-long learning.

Recognition of a theoretical basis for becoming experience-based may be helpful in rethinking the framework of judicial education. Support for learning that comes through planned experiences, and that builds upon the previous experiences of learners, can be found in human development and cognitive development research. Experiential learning as a theory began in the 1870s in the concept of pragmatism. C. S. Pierce, in an article in *Popular Science Monthly* summarized the idea: "Thus, we come down to what is tangible and practical as the root of every real distinction of thought, no matter how subtle it may be."[4] Philosopher William James, with John Dewey and others, developed the concept further. In his 1907 book, *Pragmatism: A new name for some old ways of thinking*, James describes a pragmatist as someone who "turns away from abstraction and insufficiency, from verbal solutions, from bad *a priori* reasons, from fixed principles, closed systems, and

pretended absolutes and origins. He turns toward concreteness and adequacy, toward facts, towards action and towards power."[5]

In his work, Kolb refers to these philosophical underpinnings and related intellectual traditions in social psychology and cognitive psychology as the grounding for a discipline of experiential learning. He integrates the concepts in an easy to understand model. Kolb's model and supporting research also become a philosophical rationale for moving to a more experience-based approach in judicial education. They provide a structure and framework for bringing "hallway learning" into the classroom experience, with the goal of creating environments that bring about transformative learning.

The Cycle of Learning

The Cycle of Learning describes two dimensions of learning. The first is the dimension of taking in, or perceiving, information. In this dimension, individual learners' preferences and strengths will fall somewhere along a continuum between the concrete and the abstract.

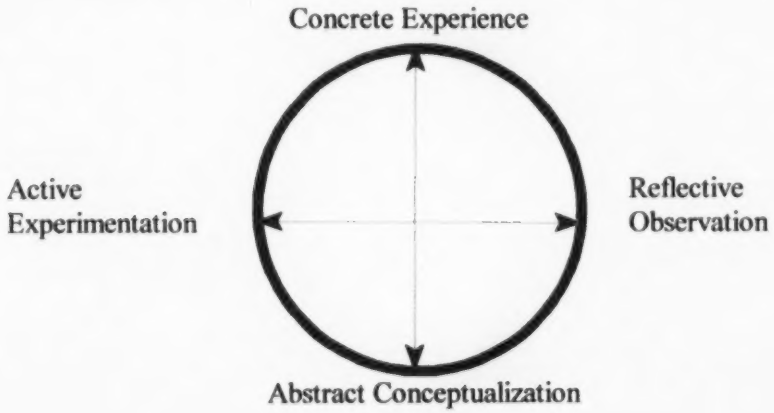
Judicial educators benefit from the understanding that information is taken in and perceived both concretely, through the senses, and abstractly, through symbolic representations. Even as judges have developed skills for abstract thinking through years of formal education, they must be given opportunities to hone their skills for grasping new information that arises in the course of their daily work experiences. Judges need to develop and enhance exceptional experiential and abstract perceptive skills.

Kolb's model challenges our understanding even more by proposing that learning does not happen just by taking in information. After all, much of what we take in abstractly or through experience does not effect a change in us. As William James put it, "Millions of items of the outward order are present to my senses which never properly enter into my experience. Why? Because they have no interest for me. Only those items which I notice shape my mind."[6]

The "noticing" mechanism was described by Kolb as the second dimension of learning: that of processing and making personal meaning of the information. This dimension also is a continuum, from reflective observation to active experimentation. Individuals absorb and process information by reflecting on their experiences and looking at them from multiple points of view. They also process actively, by trying things out. Individuals tend to display a preference in how they process information. The preference may fall anywhere along the spectrum between reflection and action.

Effective judges are skilled in reflective observation and active experimentation. They must make careful observations before they move to judgment. They also must be able to take action to get things done in order to progress through their heavy caseloads. And yet, the role of processing information is largely unaddressed in traditional judicial education. Reflection on and implementation of presented material is left to participants on their own time. It might even be said that traditional judicial education is viewed as a way of presenting information rather than as a way to achieve learning. By its very design, traditional judicial education has given reality to the proposition: "It's up to the individuals whether they learn or not." In the extreme case, judges may be said to learn *despite* the formal education process.

For learning to be complete, Kolb describes a circular process— a cycle of learning— moving from experience, to reflection, to generalization, to application. Proponents of "new judicial education" see their role as providers of complete learning experiences for judges. They plan learning activities to guide judges through the cycle of learning.



Learning Styles

The belief that people learn differently is centuries old. Greek philosophy and Hindu traditions identified active, passive, thoughtful and emotional types. While significant research on individual styles took place through the 1900s, interest in its application to learning waned early in the face of intelligence research. Beginning early in 20th century, E.L. Thorndike and others found that the intelligence quotient (IQ) was highly predictive of achievement in school, and this heavily influenced educators' thinking about learning.[7] While they could show that high IQ was better than low IQ for purposes of school learning, it was not possible to prove a hierarchical relationship in learning styles.

Interestingly, the IQ studies gave all students the same type of instruction and the same amount of time to learn. The underlying assumption was that schooling adequately and effectively addressed education in this manner. Other researchers began exploring different methodologies.

In 1963, John B. Carroll reported that aptitude was not a major factor in achievement when a variety of teaching approaches were used and students were given as much time as they needed.[8] Benjamin Bloom added to the research. While keeping achievement measures constant, he found that with flexibility in teaching methods, materials and time, virtually all learners were able to achieve at the defined achievement levels. This line of research began to resemble earlier research findings related to learning styles.[9] Unfortunately, the heavy influence of IQ research drove learning style research energy more toward studying differences by group— race, sex and social class— rather than toward individual learning patterns.

During the late 1960s, David Kolb noticed in his teaching experience that individuals tended to make consistent choices in how they received new information and how they processed it. He had begun to use a variety of teaching methods out of dissatisfaction with the results of traditional methods in teaching management students. As he introduced experiential methods in the class, some students who had been satisfied with the traditional teaching approach exhibited discomfort with new classroom activities. His cycle of learning model was a way to explain the classroom activities, moving from student exercises to observations, to theory and then to application. The Learning Style Inventory was a way for his students to understand individual learning differences and to gain insight about their own learning preferences.

The inventory presented twelve questions to be answered by the participant. A numerical scoring system allowed participants to identify themselves within one of four learning styles:[10]

- Diverger: prefers to take information in actively and process it reflectively.

- Assimilator: preference for taking information in abstractly and processing it reflectively.
- Converger: prefers to take information in abstractly and process it actively.
- Accommodator: preference for taking information in actively and processing it actively.

Within each style was further diversity representing the strengths of participants' preferences along the "perceiving" and "processing" continua. The visual depiction of the learning styles helped students understand why classroom activities were liked and disliked in varying degrees by class participants.

Since that beginning, the Learning Style Inventory has been translated, tested, and found reliable in many countries, including Australia, Thailand, Canada, Spain, Japan, Brazil, and the United Kingdom.[11] Through years of research with the Learning Style Inventory, at least five factors have been identified as influencing learning styles:

- personality type (introversion versus extroversion, action versus reflection);
- educational experience (being taught how to learn);
- career choice (specialized training and professional norms);
- current job role (accentuating frequently used activities); and
- specific tasks or problems (skills needed for effective performance).[12]

While individuals within a particular profession often demonstrate similar learning styles, a balanced and flexible style has been found to prepare individuals better for differing situations and change. Clearly, individuals' educational and life experiences play the pivotal role in adaptive style development. Experiences are more important than sex, age, or race in accentuating learning style. And, the ways in which individuals "learn to learn" become key experiences.

Judicial education has a role to play in development of balanced learning styles. Balanced learning styles can be developed in an environment that accommodates learners' preferred styles, while also introducing material and methods that call upon other styles. This is an important aspect of a constructive atmosphere of support and challenge.

Teaching Around the Circle

A learner's preference in the concrete-abstract dimension reflects a tendency to choose one mode over another. For example, when presented with the choice of learning about a new domestic violence court, a judge might first want to read a summary report about its processes. Another judge might choose to first visit the court to observe its operations. The first judge, if given the option, might choose case summaries as the way to learn about evidence law, while the second might prefer working with real-life situations.

In the same way, judges will make choices in how they process information that re`ect their

preference in the active-reflective dimension. When faced with a new idea at a conference, one judge may return home resolved to study the idea further, while another may form an implementation task force. Of course, most judges can also work in their less-preferred mode.

The challenge for judicial educators is to create learning environments that both appeal to judges' preferred modes— their learning styles— and also provide opportunities to "stretch" and work in less-preferred modes. This type of teaching is important for judges because their work demands facility with concrete and abstract, reflection and action. Judges who prefer the abstract information they get in the findings of a professional report, must be able to equally appreciate witnesses' testimony about their experiences in the matter. Judges who prefer having time to reflect before rendering a decision, must at times make on-the-spot rulings in the courtroom.

Kolb's model suggests that learning tends to move in a circular fashion from experience to reflection, to generalization, to application. Patricia H. Murrell and Charles Claxton have expanded upon the model to suggest instructional methods for judicial educators to "teach around the circle."[13]

Application	**Direct Experience**
Role play	Demonstration
Individual and group projects	Case studies
Devising plans of action	Films
Problem-solving activities	Self-tests
Principles and Theories	**Reflection and Observations**
Checklists	Structured discussion
Charts and flowcharts	Journals
Reference guides	Socratic dialog
Rules and laws	Debriefing sessions

By introducing this concept to faculty, judicial educators have made strides in explaining the need for varied instructional methods in judicial education. Successes are being reported in small-group workshops that have used this model to create the learning environment. More instruction is needed, however, in applying the concept of teaching around the circle to particular groups and in certain subject areas. As more examples are presented, faculty will be emboldened to stretch beyond the examples to still other applications.

At the same time, faculty must be cautioned that their selection from a menu of methods can become a trite and ineffectual exercise, if they do not also recall the underlying purposes for the methods. In Kolb's model, the critical element for beginning and completing the learning is concrete experience— experience felt, processed, learned from, and applied. The educational *experience* is individually felt and interpreted by each learner. While the instructor provides an environment in which experience can lead to further learning and better practice, it can only be done well through participant-focused instruction, in which learners' needs are the primary focus in planning and presenting education. When the educational experience is based on an understanding of who the learners are, the nature and practice of their work, and the issues that relate to good practice, then the "how" and the "what" of judicial education can move beyond imparting information to meeting the learning needs of judges.

Growth and Development in Learning

Kolb's Cycle of Learning serves as a way to understand the process for developing more sophisticated skills in the dimensions of life. It demonstrates how, through educational and life experiences, learners are able to address challenges with increasing levels of complexity. For Kolb, learning is a process where "ideas are not fixed and immutable elements of thought, but are formed and re-formed through experience."[14]

Visually, Kolb's development process can be described as a conical helix, with learners cycling on a continuing basis through the four parts of the learning circle: concrete experience, reflective observation, abstract conceptualization, and active experimentation. A learner might begin anywhere in the cycle, at any level of ability with the subject matter. As the learner negotiates all four stages of the cycle, learning of the subject is expanded, as is the ability to learn in general. The stages also represent skill domains which are developed through experience.

Concrete experiences help people to develop more complex sensing-feeling (affective) skills. As they think abstractly, they develop more sophisticated thinking (symbolic) skills. Through their opportunities to observe reflectively, people develop more complex observing (perceptual) skills. As they experiment actively with new material, they develop more sophisticated acting (behavioral) skills.

Development in each mode and each dimension evokes development in the others, moving in an upward spiral. The apex of development is achieved with fully integrated skills in each mode, allowing flexibility and adaptability to change.

Kolb describes an individual's state at the beginning of adult development in relation to learning style as "embeddedness." All of the factors that contribute to learning style in the earlier years, during the *acquisition stage*, have left an individual stuck, or embedded, in a

particular pattern. The "unsticking" process and forward movement in one's development generally begin with entry into a new career. For example, when judges are newly appointed or elected, they will begin to work on skills that meet the demands of their work. Most people at this stage will accentuate their learning styles to adapt to the dominant style in their field (the dominant learning style held by perhaps two-thirds of judges is assimilating: taking information in abstractly and processing it reflectively). Still, this movement during the *specialization stage* creates some flexibility and opportunity for accepting other successful modes.

Beginning at mid-career, individuals become more willing to express non-dominant styles and skills. This stage, called the *integration stage*, is when individuals begin to recognize the value of all four learning modes and the need for learning skills in each area. Judges who have had learning styles other than the dominant assimilator style may begin to express them again. Those who have had an assimilator style from the beginning, may find life circumstances and job demands that require other skills. At this stage, the mythical wise judge becomes real in the many forms achieved by judges as they integrate their experiences into the affective, symbolic, perceptive, and behavioral skills of the lifelong learner.

While Kolb's model is theoretically one of a balanced, steadily upward spiral, the reality is that each person's development will be more or less uneven in its progression toward integration of all four of the learning modes and associated life skills. Life experience will be a major influence, as will continuing educational experiences. For example, judges cycling into new assignments may continually feel the need to revert back to the dominant, abstract approach, even though their years on the bench may have prepared them for more sophisticated, integrated approaches. Educators who teach only to the dominant learner preference will not prepare new judges and newly-assigned judges for a path of growth and development. Further, teaching only to the dominant preference will inevitably disadvantage the one-third of judges who begin with a different learning style.

While growth and development in adulthood is, to a degree, voluntary, educators play an important role in presenting opportunities to learners that motivate development. Rather than perpetuate the stereotypical ideal of the "generic, journeyman judge" through educational activities that keep learners stuck at a lower level of development, educators should provide experiences that allow for continuous development and ever-increasing skills.

Brain learning

In the environments they create, judicial educators either support or detract from continuous development of learners. Judges in the classroom are not only taking information in, they are also learning, on a biological level, how to find and use the information at a later time. Kolb's model helps us understand the importance of experience in the external

learning environment. Neuroscience has confirmed that experience is the way brain pathways are formed and reformed in our "internal" learning environment. As we look at development of the brain, we can see how experience literally guides the physical growth of the brain's capacity.

Neuroscientists have studied how brain development occurs since the 1970s.[15] In the past five years, new technologies have allowed for greater understanding of the processes that take place in the brain. At birth, a baby's brain contains billions of neurons, most of the nerve cells it will ever have. The circuitry for this energy, however, happens after birth as synapses, or connectors, link neurons with trillions of axons (sending signals) and dendrites (receiving signals).

From birth, the brain develops and modifies itself sequentially from the lower, more routine regions (like the heartbeat), to the higher, more complex regions (like sight). The newborn baby can sense things only dimly. The higher centers of the brain that control sight, smell, hearing and touch are not fully wired as yet. The connections for these functions come later in the developmental time line.

As the first connections are made, neurons begin to fire. Their own activity becomes important now, because the brain matures in a "use-dependent" fashion. The electrical activity of brain cells, through "use," changes the physical structure of the brain. This "use-dependent" capacity to make an internal representation of experiences is the basis of learning and memory.

During early childhood, unused connections die off. Synapses that have not been stimulated through sensory experiences are destroyed even as new synapses form where there is brain activity. By age ten, the balance between adding synapses and removing synapses shifts, as enzymes in the brain actively cull the weakest synapses. The synapses that remain are what make each individual unique. "Potential for greatness may be encoded in the genes, but whether that potential is realized as a gift for mathematics, say, or a brilliant criminal mind depends on patterns etched by experience in those early years."[16]

Brain plasticity, the ability of the brain to recruit new neuron populations into cortical maps that support a new skill, continues through adulthood. By the end of adolescence, the generalized plasticity is significantly diminished, but the ability to strengthen existing patterns has become more powerful. Cortical maps expand and change as new skills are learned and mastered. Neurons and their synapses may be recruited for specific purposes, later abandoned, and sometimes recruited again. Neurons can participate in several different experiential representations at different times. As they are recruited and join in the formation of new cortical maps, the plasticity of existing cortical maps to which they belong is also supported. All of this activity in the adult brain is driven by behavioral experience, not by

inherited traits or developmental time lines.

Since the cortex has a limited supply of cells, growing cortical maps compete for neurons and synapses. As one map grows, another one often shrinks. Scientists have found that the timing of messages between neurons along the synapses is important. If frequent and strong messages are sent to other neurons that are already activated, the connection between the neurons becomes stronger. These strengthened connections can last for weeks and play a role in the formation of cortical maps. The other side of this phenomenon is that the "abandoned" map is depressed, resulting in inhibited synaptic communication.

This down-side of plasticity is protected against by a certain reluctance of the brain to change. The adult brain requires attention and intensive practice and repetition of new material before it will accommodate a new or expanded cortical map. Philosopher William James stated that we need "a structure weak enough to yield to an influence, but strong enough not to yield all at once."[17] The brain is such a structure.

Looking at Kolb's model in this context, we see again the importance of experience to trigger learning, and the increased value, for long term learning, of going around the circle again. Reflection on the experience is the "attention" needed by the brain, so that the patterns or abstract concepts can be built into cognitive maps. The active experimentation, with physical activity and involvement of the senses, stimulates the neurons and strengthens the synaptic connections.

In light of what we know about brain learning, the single-pass approach at information takes on questionable value. Traditional case law updates and substantive overviews can be expected to have little or no lasting impact on judicial practice. It must be recognized that those typical presentation approaches do not support the patterning process that will allow for greater learning efficiency in the same subject area. Effective judicial educators will develop experiential educational models that take what is useful from these topics and integrate them into "learning material."

The additional element of competing cortical maps, with brain resources being taken from some areas and added to others, reinforces the need for judicial education experiences to be focused on higher order thinking, observing, sensing-feeling and behaving skills. For judicial educators, this requires a level of knowledge about the progression from basic to complex skills in these areas. That knowledge must come from a strong understanding of the judge constituents, the important work they perform, and the issues that directly impact good practice.

Deep learning

Almost any judicial educator would say that they desire for their judge participants a deep

learning of the subject matter presented in conferences and seminars. Some interesting research in this area shows that what we wish for our students is not always supported by our actions. We may use a form of teaching indicated by Kolb's model, but our students may receive, in substance, a fairly surface learning of the material.

Surface and deep approaches to learning were identified in research published in 1976.[18] Since then, the research has primarily focused on whether formal education fosters independent learning, and whether it supports individuals in their continuing professional endeavors. Internationally, the research has been used to create evaluation processes for measuring student learning experiences in various academic fields. In 1992, for example, Australia's Higher Education Council adopted a draft policy and standards about quality learning that impacts the nation's university review system.[19]

The deep approach is described as being personally involved in the learning task and seeking underlying meanings in the material.[20] Learners using the deep approach are likely to read extensively around a given topic and to discuss the material with others. They seek to understand the relationship between the immediate learning and future tasks or contexts.

By contrast, learners who use a surface approach view the learning as a means to achieve an end. The motivation is extrinsic, such as fulfilling a requirement for promotion or completing an educational mandate. The surface approach tends to involve doing just enough work on the subject to achieve the extrinsic objective. Memorization and rote use of presented material is the learning result, accompanied by an inability to explain the relationships between tasks or establish meaning for what has been learned.

A middle approach is evidenced by learners who have external motivations related to career or ego, but whose motivations drive them to strong performance in the learning that will help them achieve their goals. These learners adjust their learning according to the rules of success as they perceive them.

Each of the three learning approaches may be used at different times. Among the factors that influence the choice of learning approach is the educator's theory of teaching:[21]

> *Filler of empty vessels*: Faculty who view teaching as the transfer of content into the learner's mind (i.e., filling an empty vessel) tend to feel that their only obligation is to create well-prepared and organized presentations. Any learning failures are blamed on the learners. Courses taught in this way encourage learners to be passive receivers of material who look to the instructor as the "giver of meaning."
> *Shaper of unformed minds*: The educator here is the determiner of the desired shape of the learning product. Desired behaviors are carefully defined, with steps for achieving those behaviors planned by the instructor.

In this environment, learners are expected to mold themselves in the fashion set out by the instructor. They receive the content and demonstrate it back in the faculty-defined way.

Guide to learning: This more developed approach has faculty and learners undertaking the learning experience together. Multiple perspectives are explored, and activities are designed to bring about a conceptual change in the learner. No single way to accomplish the learning tasks is presumed. Rather, consideration of several approaches is part of the educational journey in fulfillment of the objectives.

Learning environment provider: In this approach to teaching, the instructor's role is to provide the setting, resources, and experiences for learners to achieve desired outcomes. Learners contribute objectives, process, knowledge and past experience to the class. The faculty creates a context within which learning progress can be achieved, but the learning process and outcomes are a collaborative effort between faculty and students.

Clearly the first two theories of teaching encourage a more surface approach to learning. It is of note to judicial educators that most new judge orientation and "basic" programs tend to reflect these approaches ("we like interactive teaching, but the nuts and bolts classes have to be mostly lecture"). In fact, many judicial education faculty maintain that the Kolb model of experiential learning can only be used in continuing or advanced level courses. As a result, the most interactive and experience-based judicial education courses tend to be the small seminars attended by more senior judges.

It would appear that our instructional approach with entering professionals may be encouraging the adoption of a surface approach to learning which will hinder progress to more complex skill levels. Researchers have found that individuals who "learn" that the educational process is a transfer of knowledge can become resistant to activities designed to help them learn for themselves.[22] These learners see it as the responsibility of the faculty to provide them with well-structured lectures and materials. Exercises, role plays, and group work are seen as almost an abdication by the faculty of their teaching obligation. In the future, these learners will have a difficult time assimilating material that requires development of personal frameworks and meanings.

In studies of advanced courses where deep learning was the stated goal, such as those intended to foster high level critical thinking skills, researchers found that sometimes instructional methods actually conveyed a more surface expectation to learners.[23] Lectures and presentations of factual knowledge often occupied the majority of time, with relatively little opportunity for application of the material in student activities. Excessive amounts of content material, also strongly associated with surface learning, were presented in these

courses. For judicial educators, these findings challenge the traditional organization and structure of basic and continuing education.

Additional factors found to impact a learner's choice of a deep approach to learning include:

- interest and relevance of content to learner;
- sufficient challenge to stimulate, but not so much as to dampen motivation;
- clarity and organization of content, though it should be noted that "hand-feeding" information encourages surface learning;
- concept mapping to demonstrate where the class is going (and has gone) and how the parts fit together; and
- practical exercises and assessment instruments that require analysis and synthesis, rather than eliciting factual or descriptive responses.

The most significant factor in deep learning is use of participatory learning strategies. Learners who become involved in their own learning and actively engage with the material will adopt a deep approach to the material.

Interestingly, faculty "entertainment qualities" are not significant factors in the degree to which learners move toward deeper learning. Clarity of speech and the ability to explain do impact the learning approach, as does the ability to surrender some control of the course pace and direction to learners. Involving learners in the process of instructional design and in learning activities directs their focus toward engagement with the course material rather than toward the faculty. Ultimately, the more involved the learners are in the process, the higher the quality of learning, and the less attuned they are to faculty platform skills.

Judicial educators who wish to encourage deep learning should integrate the relevant factors with Kolb's experiential learning model. The most effective faculty development courses will not emphasize platform skills, but rather will focus on ways in which to effectively connect learners with the material. Interactive methods used to teach around the circle will lead to deep learning when the challenge level, relevance, and volume of content, are attended to appropriately.

Implications of Kolb's theory for judicial education

Kolb's Cycle of Learning explains the need for involving learners in activities that stimulate all four learning modes: direct experience, reflection and observations, theory and principles, and application to practice. The recognition of individual learning styles informs faculty of the need for diversity in instructional methods. These applications of Kolb's work to judicial education have been acknowledged and discussed for a number of years, though implementation has proceeded more slowly.

There are two other aspects of Kolb's theory that can inform better practice in judicial education: the elemental focus on experience, and the higher level aspects of "going around

the circle again." The complimentary research on deep approaches to learning adds additional importance to the selection of content and methodology. All of this highlights a need for reassessing faculty development and other supports in judicial education.

The material presented here suggests four broad areas of development for judicial education organizations:

- the experiential component of judicial education;
- pre-class, post-class, and alternative delivery methods;
- resources for self-directed learning by judges; and
- organizational valuing of individualized judicial development.

The Experiential Component of Judicial Education

In judicial education, few providers expect to offer a complete line of courses from beginning to advanced, in every area of importance to judges. And within the limited courses offered, whether in new judge orientation programs or advanced training, providers tend to teach to the most common denominator rather than to the varied levels of expertise brought by judge participants. As judges continue on the bench, education can become distant from any practical, developmental objective because of this "teaching to the middle."

If there were a single enhancement to promote in judicial education, it would be that of including concrete experience in every learning situation. The suggestions by Drs. Murrell and Claxton of activities to evoke an emotional involvement with the material can be informative. Video clips, testimonials, demonstrations, and other methods can be powerful connectors between learners and the desired learning outcomes. And yet, we know that even very skilled educators cannot design experiences to the degree of complexity that real life provides. This becomes an issue in judicial education, where success depends on effectively reaching every learner.

Individuals come to learning situations with varied levels of interest, experience, and ability. Incorporating experiential elements in the learning environment lets educators produce the layering of complexity that reaches and moves professionals to grow and change. The more natural, less "created" the experience is, the stronger the connection will be to learning.

This concept provides a healthy challenge to the strong classroom orientation of judicial education, as replication of real life experiences within the traditional seminar format often feels forced or inadequate. It will be necessary to consider other venues and formats as part of judicial education in the future, allowing learning to develop even as experiences form and grow over a judge's career. Formal education should provide guidance in the formulation of learning objectives, reflective and observational insights, and as "sending-off points" for application.

Pre-class, post-class, and alternative delivery methods

Judges who are effective attain wide-ranging knowledge and skills. They learn to acquire new information and apply it to challenging situations. These abilities come from "going around the circle" many times. Traditional judicial education, with its emphasis almost exclusively on live program offerings, has not been positioned to be a significant factor in this learning.

The classroom experience is a powerful element of a complete learning strategy, but no conference or workshop is sufficient on its own to sustain the kind of learning that will result in good practice. No matter how effective a judicial education course may be, it will not be able to provide the multiple passes at material over time that reinforce in-depth learning, perception and wisdom.

Judicial educators must develop a wide repertoire of instructional opportunities to focus learners' energy on the high level skills required of a judge. Offering a range of ways for judges to approach the material can inspire the attention, the "noticing," that allows for development in a particular area. To achieve the intensive practice and repetition necessary for brain learning, multiple elements can be used, increasing learners' "time on task."

The complete educational strategy should involve pre-class, classroom, post-class, and alternative methods for judges to address the material. Tapes, email, readings, Internet research, chat groups, writing assignments, independent projects, and many other means can be identified and brought to bear on the issues. Deep approaches to learning can be encouraged through activities that make full use of interaction and time, thus encouraging analysis and synthesis of the material.

The crucial interplay between classroom and outside-the-class offerings in the successful judicial education strategy can provide powerful arguments to funders and policy-makers who might otherwise be inclined to view the variety of learning venues as repetitive or excessive resources in the education of judges. The combined effectiveness of these venues will demonstrate the strength of a well-rounded strategy in accomplishing individual and systemic change.

Resources for self-directed learning

The effective judicial education structure motivates judges to select deep approaches to learning. Deep approaches are supported when classes do not offer excessive amounts of information, but rather focus on active involvement by learners in experiencing, analyzing, and applying relevant material to daily practice.

As judges choose deeper approaches to learning, they will want to do additional reading, study, and discussion in the subject area. The provision of reference and research sources,

including learning opportunities through other providers, will be an important role for judicial educators. Self-study efforts by judges should be supported and valued in the way work time is allocated for educational efforts, mandatory education credits are granted, and accessible links to informational sources are created.

The emphasis on deep approaches also results in less aggregate material being "covered" in judicial education classes. Certain material is not appropriate for educational offerings, including lengthy review of statutes, scripts, and other material for which the necessary level of knowledge is simply knowing it exists and where to find it when needed. This type of material would more aptly be viewed as *job aids*: ready reference or how-to information that should be available on demand in the course of one's work. While the regular use of the job aid may result in its memorization, the user does not need to internalize the job aid in order to realize its benefits.

Judicial educators should accept a role as provider of job aids and resource material. These materials should be made available in on-demand formats, such as publications and on Internet sites, and referenced in supporting materials for classes. Job aids and resource material are what make it possible for learning activities to focus on the deeper approaches.

Organizational valuing of individualized judicial development

Judicial education organizations need to foster understanding and support for the individualized development of judges. A fungible, "generic judge" concept has been inadvertently conveyed to legislatures and members of the public through judicial branch approaches in task-oriented workload studies, rotating judicial assignments, and minimal good-behavior approaches to ethics. The generic judge concept needs to be countermanded with information about the benefits to the public of highly developed judges, each who bring a unique and lasting contribution to the judicial system.

Ultimately, the value of judicial education and its continued existence is linked directly to the value of an educated and highly developed judiciary. Judicial educators should consider an expanded role in explaining, demonstrating, and promoting the need for judges who are highly skilled in complex thinking, observing, feeling and acting. The facts and insights that support this view will become increasingly available to judicial educators who develop more complex, layered approaches to judicial education.

By advancing an informed view of judges and their roles, educators will be supporting the continued relevance and viability of judicial education that is participant-focused, growth and development oriented, and directed toward continually improving court practice.

Conclusion

This paper has explored Kolb's theory of growth and development and related schools of

thought. What has been discussed in theory, has been validated in the experiences of judges who have had the opportunity to "learn around the circle again." One such experience is the State Justice Institute funded Institute for Faculty Excellence in Judicial Education, where judges attend a week-long course, embark on a six-month mentored independent study project, and return to present the completed project.[24]

In a recently completed evaluation of judges who returned to the Institute to serve as mentors, participating judges consistently described their return experiences as life-changing and important to their learning. As one participant stated:

> "The first time I attended the Institute, I thought the purpose was to make me a better presenter and teacher.... By the time I finished and presented my project [at the follow up session]... the meaning I found was that teaching is as much learning yourself.... By the time I "went around the circle twice" as a mentor, I learned that the Institute has taught me to live my life differently.... It's not enough to say that I care about an issue... I need to live that commitment on a daily basis."[25]

Judicial educators must assume a role in the learning and development of highly skilled judges. Kolb's theory offers a perspective and approach that can help judicial educators fulfill their role. The methods and approaches discussed here provide a launching point for further discussion and experimentation.

As the field of judicial education moves through the next decades, it would also do well to examine its own processes for organizational learning. Improved educational practice will be achieved when the education organizations themselves pursue deep perception and understanding, continuously developing their role as they go through the cycle of learning.[26]

End notes

1. This paper was written for "Strengthening the Faculty Component in Judicial Education," a National Council of Juvenile and Family Court Judges project funded by the State Justice Institute in grant number SJI-96-042. The views expressed are those of the author, and do not necessarily reflect the views of either the State Justice Institute or the National Council of Juvenile and Family Court Judges.

2. The author wishes to thank Robin L. Pierce, J.D., Warren A. Wiles, Ph.D., and Susan Yeres, Ed.D., for their participation in spirited conversations about the nature of professional education and their thoughtful review of the content presented here.

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26. Krista R. Johns is Managing Attorney for Education Development at the California Center for Judicial Education and Research. She can be reached at krista.johns@jud.ca.gov